



Northwest Ius Chasma Landslide and Dune Field

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Landslides in Valles Marineris are truly enormous, sometimes stretching from one wall to the base of another. This 45-kilometer-long HIRISE image alone drops nearly 2 kilometers in elevation into Ius Chasma. This landslide, known as Ius Labes, would occupy the surface area of Delaware. This site records a long and complex geologic history of landscape evolution. This history likely includes: (1) ancient lava flows and ash fall deposits which were deposited horizontally and would eventually make what now is canyon wall material; (2) extensional forces rifted or faulted Valles Marineris; (3) mass wasting ensued where gravity forced weak and dislodged rock down into the canyon as massive landslides or smaller fans of boulders; (4) wind driven aeolian forces took small sand-sized particles to form dunes and ripples observable in this image, while also slowly eroding the landscape and modifying its shape.